

Amendments to the Claims:

Please amend claims 17, 18 and 22. Please cancel claim 34 without prejudice or disclaimer. Please add new claims 35-41. This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

Claims 1-16 (Canceled)

17. (currently amended) A method for monitoring the delivery of a large nucleic acid molecule into a cell comprising:

- (a) labeling the large nucleic acid molecule;
- (b) delivering labeled large nucleic acid molecule into a cell; and
- (c) detecting labeled large nucleic acid molecule in the cells by flow cytometry, fluorimetry, cell imaging or fluorescence spectroscopy, as an indication of delivery of nucleic acid molecule into the cells.

18. (Currently amended) The method of claim 17, A method for monitoring the delivery of a nucleic acid molecule into a cell comprising:

- (a) labeling the nucleic acid molecule;
- (b) delivering labeled nucleic acid molecule into a cell; and
- (c) detecting labeled nucleic acid molecule in the cells by flow cytometry, fluorimetry, cell imaging or fluorescence spectroscopy, as an indication of delivery of nucleic acid molecule into the cells, wherein the nucleic acid molecule is labeled with a thymidine analog.

19. (Original) The method of claim 18, wherein the thymidine analog is iododeoxyuridine or bromodeoxyuridine.

20. (Original) The method of claim 19, wherein a delivery agent comprises a cationic compound, and the nucleic acid molecule is treated therewith.

21. (Previously presented) The method of claim 20, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), C₅₂H₁₀₆N₆O₄C•4CF₃CO₂H, C₈₈H₁₇₈N₈O₄S₂C•4CF₃CO₂H, C₄₀H₈₄NO₃P•CF₃CO₂H,

$C_{50}H_{103}N_7O_3\bullet4CF_3CO_2H$, $C_{55}H_{116}N_8O_2C_6\bulletCF_3CO_2H$, $C_{49}H_{102}N_6O_3C\bullet4CF_3CO_2H$,
 $C_{44}H_{89}N_5O_3C\bullet2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{20}N_{12}O_4S_2\bullet8CF_3CO_2H$,
 $C_{162}H_{330}N_{22}O_9\bullet13CF_3CO_2H$, $C_{43}H_{88}N_4O_2\bullet2CF_3CO_2H$, $C_{43}H_{88}N_4O_3\bullet2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

22. (Currently amended) The method of claim 18, wherein the nucleic acid molecule is a naked DNA that is greater than about 0.6 megabases in size, a natural chromosome, an artificial chromosome or a fragment of a chromosome, or naked DNA that is greater than at least about 0.6 megabase in size.

Claims 23-30 (Canceled)

31. (Original) The method of claim 17, wherein the cell is selected from the group consisting of a primary cell, an immortalized cell, an embryonic cell, a stem cell, a transformed cells and a tumor cell.

32. (Canceled)

33. (Previously presented) The method of claim 17, further comprising:
(d) determining the number of cells containing the label.

34. (Canceled)

35. (New) The method of claim 17, wherein the nucleic acid molecule is labeled with a thymidine analog.

36. (New) The method of claim 35, wherein the thymidine analog is iododeoxyuridine or bromodeoxyuridine.

37. (New) The method of claim 36, wherein a delivery agent comprises a cationic compound, and the nucleic acid molecule is treated therewith.

38. (New) The method of claim 37, wherein the compound is selected from the group consisting of N-[1-(2,3-dioleyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTMA), dioleoylphosphatidylethanolamine (DOPE), 2,3-dioleyloxy-N-[2(spermine-carboxamido)ethyl]-N,N-dimethyl-1-propanaminiumtrifluoroacetate (DOSPA), $C_{52}H_{106}N_6O_4C\bullet4CF_3CO_2H$, $C_{88}H_{178}N_8O_4S_2C\bullet4CF_3CO_2H$, $C_{40}H_{84}NO_3P\bulletCF_3CO_2H$, $C_{50}H_{103}N_7O_3\bullet4CF_3CO_2H$, $C_{55}H_{116}N_8O_2C_6\bulletCF_3CO_2H$, $C_{49}H_{102}N_6O_3C\bullet4CF_3CO_2H$, $C_{44}H_{89}N_5O_3C\bullet2CF_3CO_2H$, $C_{41}H_{78}NO_8P$, $C_{100}H_{20}N_{12}O_4S_2\bullet8CF_3CO_2H$, $C_{162}H_{330}N_{22}O_9\bullet13CF_3CO_2H$, $C_{43}H_{88}N_4O_2\bullet2CF_3CO_2H$, $C_{43}H_{88}N_4O_3\bullet2CF_3CO_2H$ and (1-methyl-4-(1-octadec-9-enyl-nonadec-10-enylenyl) pyridinium chloride.

39. (New) The method of claim 35, wherein the nucleic acid molecule is a naked DNA that is greater than about 0.6 megabases in size, a natural chromosome, an artificial chromosome or a fragment of a chromosome.

40. (New) The method of claim 18, wherein the cell is selected from the group consisting of a primary cell, an immortalized cell, an embryonic cell, a stem cell, a transformed cells and a tumor cell.

41. (New) The method of claim 18, further comprising:
(d) determining the number of cells containing the label.